Reinvigorating Industry Independent Research & Development

April 26, 2013

Colonel Brooks McFarland, USAF

OASD(R&E)

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Better Buying Power 1.0

Reinvigorate industry's independent research and development and protect the defense technology base

AIA Aerospace Industries Association

AIAA American Institute of Aeronautics and Astronautics

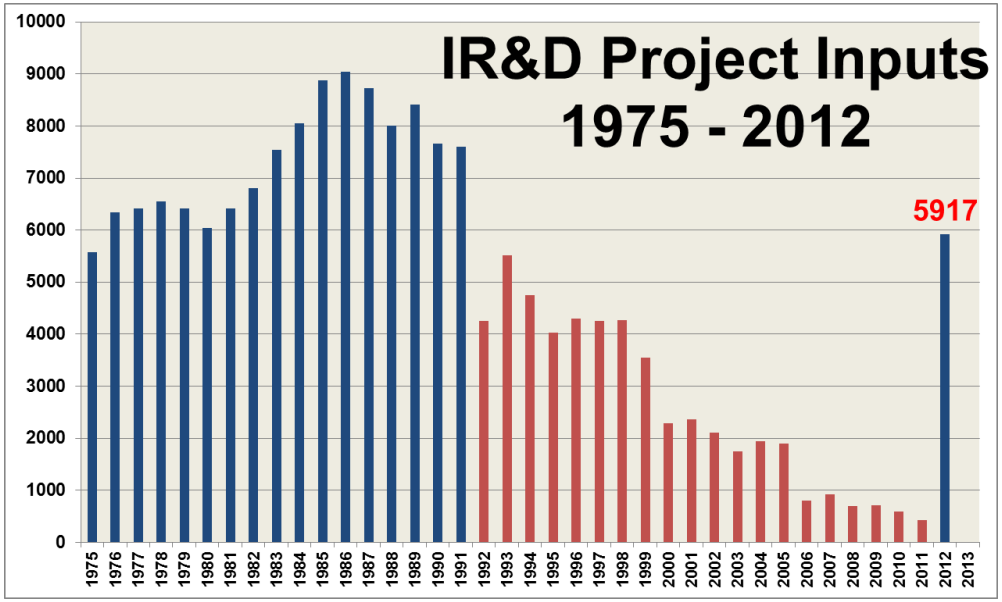
SIA Satellite Industry Association

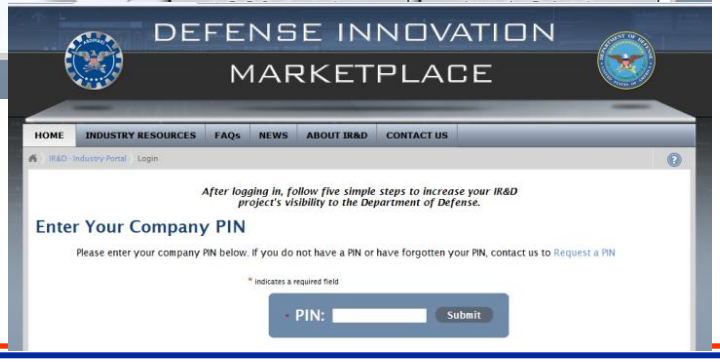
NDIA National Defense Industrial Association

DFARS Change

231.205-18 Independent research and development and bid and proposal costs.

(a) *Definitions.* As used in this subsection—





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BBP 2.0

Expand programs to leverage industry's IR&D

PROGRAM

Leverage IR&D into specific programs

Industry, S&T and ACQ PMs

Technology Insertion

Creating options for the future & tech maturity for program insertion

COMPONENT

Assessment of Component S&T and Industry IR&D to support capabilities for core missions

Industry Division Leaders
Component S&T Execs

Strategic Planning

Inform S&T & ACQ investment portfolios

OSD

Reinvigorating innovation
Protecting the Defense Industrial Base

CEOs
Industry Associations
USD(AT&L)
ASD(R&E)
DASD(M&IBP)
DASD(Research)

Setting Policy

Strengthen technical base

IR&D INITIATIVE – using actionable data to support research and development planning

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DEFENSE INNOVATION MARKETPLACE

And Other DoD Agencies

HOME | RESOURCES | FAQs | NEWS & EVENTS | ABOUT | CONTACT US

CONNECTING INDUSTRY & GOVERNMENT

The Defense Innovation Marketplace is a centralized resource to reinvigorate innovation.

For Industry, the Marketplace is a resource for information about Department of Defense investment priorities and capability needs. Additionally, industry uses this site to submit proprietary IR&D summary reports which are separately stored, accessed and used solely for compliance with the Defense Federal Acquisition Supplement at 48 CFR 231.205-18(c)(iii)(C).

For Government, the Marketplace provides access to search tools to assess and then leverage industry IR&D projects for current and future programs.

NEW IN THE MARKETPLACE

S&T Strategic Documents

- DoD Rapid Fielding Activities **NEW**
- DoD Basic Research Activities **NEW**
- FY14 Budget Request for DoD S&T **NEW**
- DoD Science & Engineering Activities **NEW**
- Systems Engineering FY2012 Annual Report **NEW**
- Navy RDT&E FY14 Testimony **NEW**

More...

Doing Business with DoD

- USD Better Buying Power 2.0 Directive **NEW**
- Maritime Helicopter Capabilities-Based Assessment **NEW**
- Rapid Acquisition Cell Omnibus **NEW**
- USMC Advanced Technology Investment Plan (ATIP) 2013 **NEW**

More...

News & Events

- 14th Annual Science & Engineering Technology Conference
- Sea Power Expo Online Overview
- Submarine and Surface Combat System Signal Processing Industry Day
- AMPV Industry Day

More...

INNOVATION OPPORTUNITIES

Resources for Industry
DoD Info for Business & Program Planning

Submit IR&D Data
Share projects with DoD Customers

Resources for DoD
Government employees search access tools

SPECIAL INITIATIVES

Human Systems

Space Systems

Follow us on Twitter

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Industry Resources

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The Defense Innovation Marketplace is your one-stop source for Department of Defense (DoD) science and technology (S&T) planning, acquisition resources, funding and financial information. Please let us know what other Department materials would be useful to post on the Marketplace so that industry can plan it's IR&D Investments at (comments@defenseinnovationmarketplace.mil).

Strategic S&T Overview

US S&T Priorities

- Science and Technology Priorities for the FY 2014 Budget
- Science, Technology & Innovation For National Security

Featured Testimony and Remarks

- USAF Space Budget 2014
- ASD(R&E) Laboratories Testimony 2013
- Equipping the Modern Marine
- Equipping the Modern Soldier

Service Priorities & Strategy Documents (continued)

Air Force

- USAF Posture Statement 2013 **NEW**
- Air Force NDAA Implementation Plan
- U.S. Air Force Energy Strategic Plan
- Presentations from Air Force Basic Science Review
- 2012-2013 Air Force

Doing Business with DoD

All Resources by Organization

- Army
- Navy
- Air Force
- USMC **Updated**
- Combatant Commands (CCMDs)
- Other DoD Agencies/DoD Offices
- DoD Basic Research
- DoD Laboratories
- Federally Funded Research and Development Centers and University Affiliated Research

Special Initiatives

- Joint Service Human Systems IR&D Events
- AF Space IR&D Events
- Interagency Working Group - Complex Engineering

DoD Research and Technology Funding Opportunities

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Updated 4/24/13

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SPECIAL INITIATIVES

Human Systems

Space Systems

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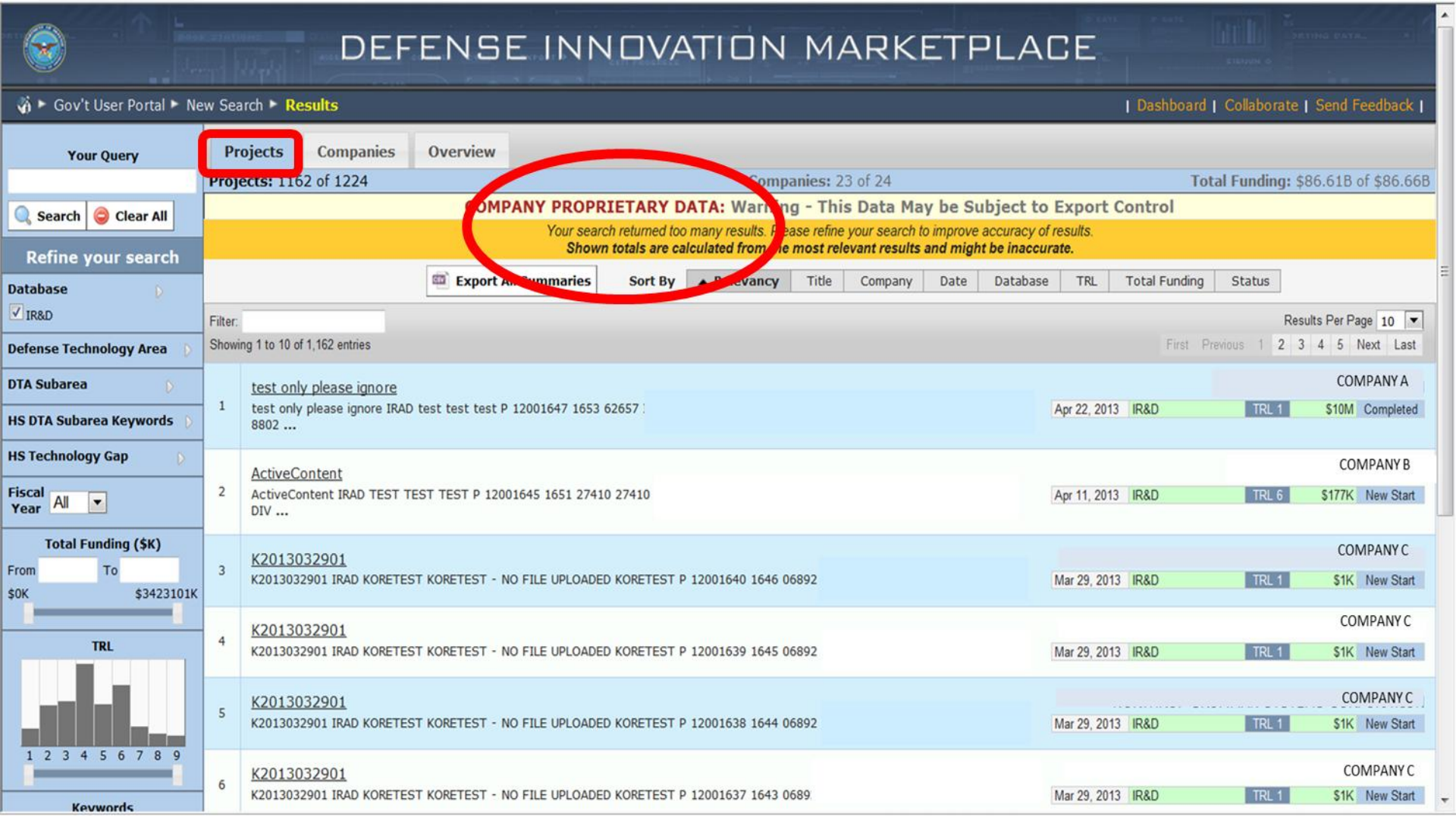
SEARCH RESULTS: Projects View



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SEARCH RESULTS: Single Project

Your Query

12001598

Search | Clear All

Refine your search

Database

☑ IR&D

Year All

Defense Technology Area

DTA Subarea

DTA Subarea Keywords

System Interfaces and Cognitive

Human, Social, and Cultural Scien

Personnel, Training, and Leader

Protection, Sustainment, and R

Technology Gap

Interface Technology

Training Technology

Total Funding ($K)

From To

$0K $500K

TRL

1 2 3 4 5 6 7 8 9

Keywords

☐ gadgets (1)

Projects | Companies | Overview

Projects: 1 of 1204 **Companies:** 1 of 22 **Total Funding:** $500K of $86.65E

Back to Projects | Print

HYGIE-TECH USA PROPRIETARY DATA
Warning - This Report May be Subject to Export Control

TITLE: This is a fake record **Type: IR&D** **YEAR: 2012**

Summary
Chinese manufacturer Huawei's flagship Ascend P2 smartphone can be operated by users wearing gloves. It's just one of the innovations on display at year's Mobile World Congress -- a showcase of gadgets and gizmos that will allow us to wave goodbye to dying batteries, water damage and a whole range of perilous situations that dare to threaten the lives of our beloved mobile phones.

IR&D Record Number: 12001598
Project Number: 135-246
Status Of Effort: New Start
Anticipated Expenditures: $500K

Tech Readiness Level: 4 - *Laboratory Validation*
Primary Defense Tech Area/Sub-Area: Information Systems Technology/Information Security

Attachments
AP_DTA.docx - 21.21 KB

Technical Point(s) of Contact
Taitum Asher, tasher@gmail.com, 234-123-3456

Target DoD Agencies
DA - Army
DAF - Air Force
MDA - Missile Defense Agency
USMC - United States Marine Corps

Performing Organization
Cage Code: 6EN03
HYGIE-TECH USA
125 WOLF RD
ALBANY, NY 12205

Parent Organization
Cage Code: 6EN03
HYGIE-TECH USA
125 WOLF RD
ALBANY, NY 12205

Keywords
gadgets, gizmos, smartphone, water damage, mobile phones

Project Description:
The best way to inform government users of the technical specifics of your project is to explain the objective and technical approach. This should not be a detailed technical report but an abstract. Two options are provided to accommodate different document formats. You may enter technical data directly in the Project Description section or by uploading files in the Project Document(s) section. You are required to enter information in at least one of these sections. The best way to inform government users of the technical specifics of your project is to explain the objective and technical approach. This should not be a detailed technical report but an abstract. Two options are provided to accommodate different document formats. You may enter technical data directly in the Project Description section or by uploading files in the Project Document(s) section. You are required to enter information in at least one of these sections.

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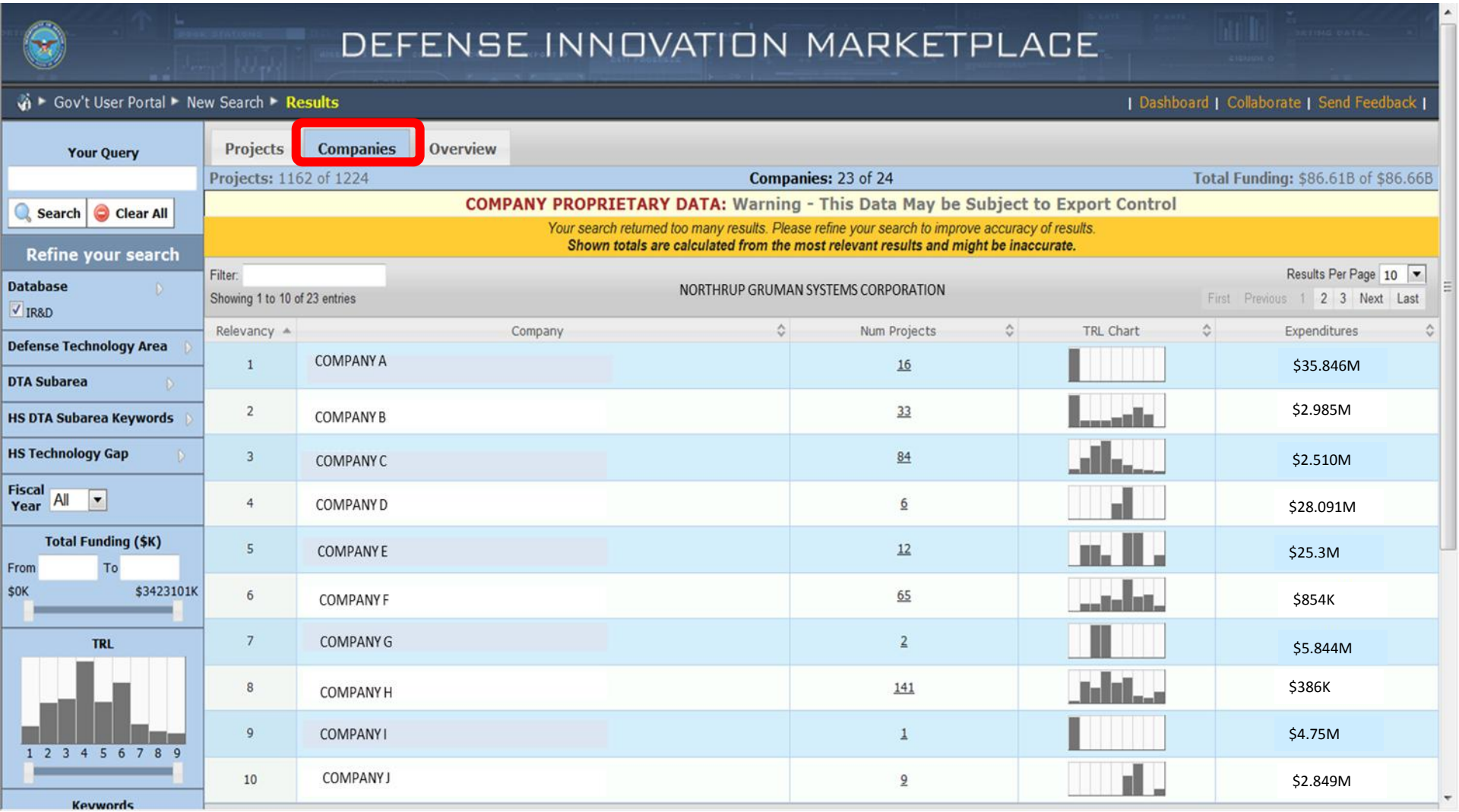
SEARCH RESULTS: Companies View



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Virtual IR&D Interchanges

DoD to Industry → **Industry to DoD** → **Assess/ Align Investments**

Transmits Tech Needs/Gaps

Responds With IR&D to meet Needs/Gaps

DEFENSE INNOVATION MARKETPLACE

Nov 12-Jun 13: Human Systems

Jan 13-June 13: Space

May 13-Sept 13: C2, ISR, Cyberspace

June 13-Nov 13: Air Superiority, Global Precision Attack, Personnel Recovery, Spec Ops, Mobility, ACS

Aug 13-Feb 14: Nuclear Weapons

COMPONENT	OSD
Assessment of Component S&T and Industry IR&D to support capabilities for core missions	*Reinvigorating innovation Protecting the Defense Industrial Base*
Industry Division Leaders Component S&T Execs	**CEOs, Industry Associations, USD(AT&L), ASD(R&E), DASD(M&IBP), DASD(Research)**
Strategic Planning	Setting Policy
Inform S&T & ACQ investment portfolios	Strengthen technical base

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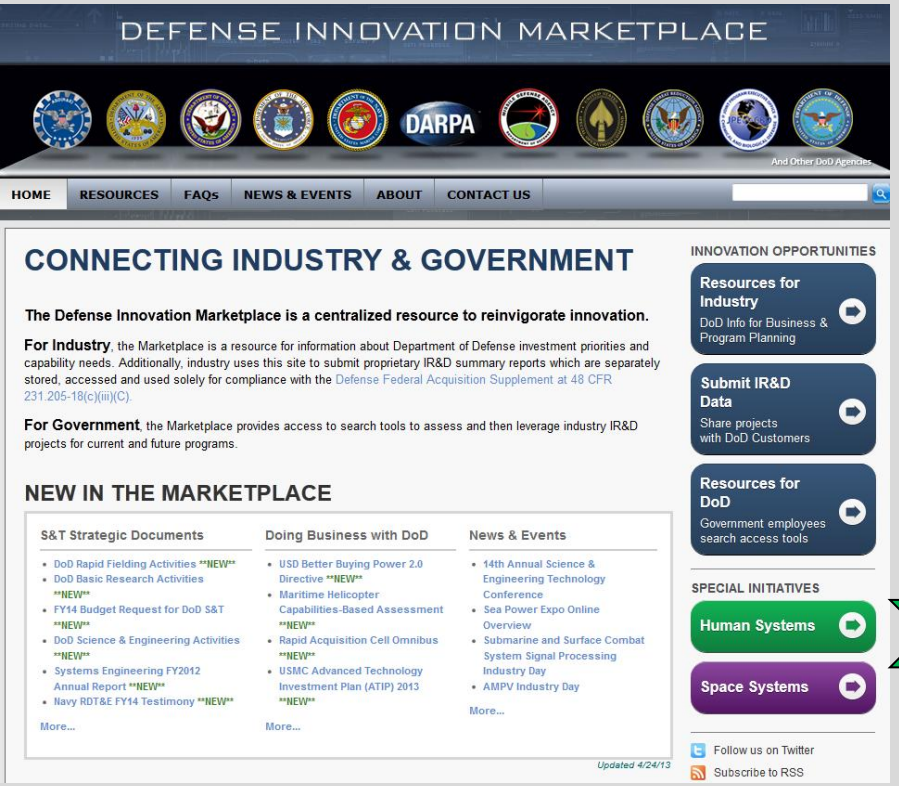
Virtual Interchange: Human Systems



Interface Challenges

#1 – Human-Machine Teaming

Gaps

- Non-verbal cue understanding between the interface and the operator
- Natural interfaces to manage multiple scale (one to many), multiple role systems

#2 – Intelligent, Adaptive Aiding

Gaps

- Metrics (systematic, scalable, relevant) for free form interactions
- Interfaces which adapt to the user's mental state
- Heuristics to determine relevant information to be exchanged during operations

#3 – Intuitive Interaction

Gaps

- Human-centric parameters for management of autonomous systems
- Goal-oriented interfaces for simultaneous multiple domain operations

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Access to Data: Industry

Current	Option 1	Option 2
PIN Process	▪ Company Registrar ▪ Register Employee ▪ Request Password ▪ Access	▪ Company Registrar ▪ Register Employee ▪ Purchase ECA ▪ Access
Input Only	Input View Update	Input View Update

More Access = Higher Admin Burden on Firms

PROPRIETARY DATA

Protect Proprietary Information And Expand Access to Project Submissions

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Access to Data: Government

Legacy

- ✓ Register
- ✓ Warning / Accept
- ✓ Access

Retrieve Only

Current

- ✓ Register
- • Warning / Accept
- ✓ Access

Plus

- ✓ Military or DoD Civ CAC Holder Only
- ✓ Vetted for Need to Access

Retrieve Only

Planned

- ✓ Register
- ✓ Warning / Accept
- ✓ Access

Plus

- ✓ Military or DoD Civ CAC Holder Only
- ✓ Vetted for Need to Access

Retrieve Only

Security Reviews

PROPRIETARY DATA

Protect Proprietary Information And Expand Access to Project Submissions

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Defense Innovation Marketplace

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Backup

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FAQs

- **Who has access to the IR&D data and who is really using it?**
  - Access to industry data is restricted and protected. Required to be:
    - DoD personnel; have CAC card; valid need for access
  - A limited number of contractors from the ASD(R&E) staff and DTIC support the project to develop and refine the SEARCH site and functionality
- **What are they doing with the data we provided - how are they using it, and how do they intend to use it?**
  - Goal of BBP is to reinvigorate innovation. The specific uses of the data are a product of the responsibilities of the users. Examples (anticipated and actual) include:
    - DASD(RF): understand innovative technologies that may support immediate needs of warfighters
    - EW Priority Steering Council: improve understanding of performers and technologies
    - S&T Execs: support investment/disinvestment decisions based on technical maturity
    - Virtual IR&D Exchange: foster discussion between PMs & industry on current technology development
- **Are they sensitive to the Proprietary nature of the data?**
  - Yes, access to use the database is restricted
  - Information is marked on every screen and printout with appropriate markings
  - Information is treated the same as all other proprietary information

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FAQs

- **What are the likely benefits to the Contractor of sharing this information?**
  - As evidenced by possible uses above, submitting information into the IR&D projects database provides visibility of technology development to relevant S&T PMs and Senior leaders in the Department (JPCC example).
- **What additional demands on Contractors do they see this creating, meaning additional inquiries from government agencies, etc.?**
  - Beta test of SEARCH is scheduled for April. We welcome your feedback on engagement with DoD personnel either positively or negatively.
- **Is / will there be a systematic review and evaluation of our IR&D project descriptions?**
  - No initial plans for a comprehensive review of the projects. Inputs are in the early stages -- we don't yet have one entire FY. The intent is to use the information to support strategic planning and influence investment decisions.

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